A limitation of prior art protocols is that some require negotiation between the transmitter and receiver systems to ensure that data arrives at its intended destination point. Such negotiation sessions consume valuable bandwidth on the communications databus and add latency to the overall system. In addition bandwidth can depend on the number of systems accessing the databus so that a particular file may not receive the bandwidth necessary to reach its intended destination. In some circumstances, the system receives no guarantee of any bandwidth no assurances that a file was actually received. This is unacceptable in an avionics environment where data can be critical and receipt by flight crew personnel must be assured with guaranteed bandwidth assigned to critical data for safe and reliable operation of the aircraft.

In the claims:

Please amend the claims as follows:

1. (Amended) A network architecture supporting periodic and aperiodic transmission of data comprising:

a network databus;

a plurality of Network Interface Controller (NIC) modules capable of communicating over said network databus, at least one of said plurality of NIC modules acting as a master timing NIC module configured to allocate a first interval for transmission of periodic data over said databus and to assign bandwidth on said network databus for transmission of data, said master timing NIC module including a means of determining what bandwidth is assigned to requests for aperiodic data transmissions based on priority, length and sequence of frames.